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ABSTRACT

This pilot project at Bath Elementary School at Richfield, Ohio, was conducted to assess the feasibility of computer assisted instruction (CAI) for the Revere Local Elementary Schools. The primary focus of the project was to assist sixth grade students in using the computer as an interactive instructional system in the areas of remedial reading, mathematics, and vocabulary. All 100 sixth-grade students used the computer daily for a school semester for either remediation or enrichment. Preliminary data showed that students gained an average of 2.4 months in reading proficiency during the months they used the computer, and academic gains were reported to be higher for those students who used CAI. The project report includes a sample of a student computer survey, parent computer survey, work and sign up schedules used during the pilot program, and newspaper/newsletter reports on the project. (MER)

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# RESULTS OF COMPUTER ASSISTED INSTRUCTION AT BATH ELEMENTARY SCHOOL

by

Martha Holden Jennings Foundation

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# RESULTS OF COMPUTER ASSISTED INSTRUCTION AT BATH ELEMENTARY SCHOOL

Background information. Two computer terminals connected to the mainframe at the University of Akron via telephone lines were installed around January 15, 1978 in a sixth grade classroom at Bath Elementary School. The educational materials on the terminals were supplied by the Computer Assisted Instruction Center (CAI) at the University of Akron. The terminals remained in operation until June 15, 1978 with a minimum of down time. The biggest technical problem was keeping the telephone lines in operation.

A grant from the Martha Holden Jennings Foundation paid for the systems usage and telephone line for the terminal given to the school by the Computer Store of Fairlawn Plaza. The second terminal was rented and provided by a teacher grant under E.S.E.A Title 4-C.

The program was a pilot project to ascertain the possibility of securing a system for use in the elementary schools of the Revere Local School System.

Results from the project. The results are listed for each objective as follows:

Objective # 1. The student will be able to increase his knowledge and skills in the area in which he works. Records were kept of the pre and post knowledge of the students as they worked on the computer. Gains made while on the computer were

compared to gains made while not working on the computer. In the area of reading (see chart on page three) the students gained an average of 2.4 more months in reading proficiency during the semester they were on the computer than during the semester they were not on the terminal. An interesting thing happened to the reading students while they were working on the computer. Because the computer prints as though there were a person typing the materials, the video terminal trained the eyes of several of the slowest readers to read faster. While it is not intended to be a speed reading machine, it did seem to cause most users to become faster, more careful readers. The basic reading students had their instructional reading levels taken at the beginning of the year, the beginning of the second semester, and at the end of the year. Two months of daily computer instruction were included in the second semester's instruction. The instructor and the materials were the same for both semesters. The only major variable was the addition of computer instruction during the second semester. The chart on page three reflects the individual gain of each student as well as the gain of the entire class.

Because doing a pre and post test of the high math class in the area of metrics results in great gains, it was decided to compare the results of previous year's classes on post tests to ascertain the effectiveness of the computer training. Two post test were given. One test was given immediately after the com-

SIXTH GRADE BASIC READING SECTION

| I. D. # | Reading Levels Sept. 1977 | Jan. 1978 | June 1978 | Reading Gains first semester | second semester | Difference in gains of second semester over first semester |
|---|---|---|---|---|---|---|
| 801 | 4.6 | 4.9 | 5.4 | 3 mo. | 4 mo. | + 1 mo. |
| 802 | 5.3 | 5.6 | 6.1 | 3 mo. | 4 mo. | + 1 mo. |
| 803 | 5.6 | 5.9 | 6.5 | 3 mo. | 5mo. | + 2 mo. |
| 804 | 5.4 | 5.9 | 6.7 | 5 mo. | 7mo. | + 2 mo. |
| 805 | 4.3 | 4.7 | (student moved) | | | |
| 806 | 3.2 | 3.3 | 3.6 | 1 mo. | 3 mo. | + 2 mo. |
| 807 | 3.4 | 3.5 | 3.9 | 1 mo. | 4 mo. | + 3 mo. |
| 808 | 3.4 | 3.5 | 3.6 | 1 mo. | 1 mo. | - |
| 809 | 4.2 | 4.5 | 4.9 | 3 mo. | 4 mo. | + 1 mo. |
| 810 | 4.6 | 4.9 | 5.6 | 3 mo. | 6 mo. | + 3 mo. |
| 811 | 4.1 | 4.5 | 5.3 | 4 mo. | 7 mo. | + 3 mo. |
| 812 | 5.1 | 5.6 | 6.2 | 5 mo. | 5 mo. | - |
| 813 | 5.0 | 5.3 | 5.9 | 3 mo. | 6 mo. | + 3 mo. |
| 814 | 5.3 | 5.5 | 5.8 | 2 mo. | 3 mo. | + 1 mo. |
| 815* | 4.1 | 4.7 | 6.2 | 6 mo. | 13 mo. | + 7 mo. |
| 816 | 5.1 | 5.3 | 5.9 | 2 mo. | 6 mo. | + 4 mo. |
| 817 | 5.1 | 5.3 | 6.2 | 2 mo. | 8 mo. | + 6 mo. |
| 818 | - | 4.6 | 5.1 | - | 4 mo. | + - |

*Visual perception problem remedied

Average gain of second semester over first semester 2.4 months.

pletion of the metric course and the other at the end of the school year. The Chi Square Test of Significance was applied to the first and second post tests of the class using the computer terminal as part of their instruction and the scores of three previous math classes on the post tests where the instruction was basically the same without the assistance of the computer. The null hypothesis that the gains were the same for both groups was rejected at the .05 level of significance. The scores for the class having the use of the computer were higher. Not only did the class with the assistance of the computer have better scores and retain more knowledge after about two months, but they also spent about one week less time doing the metric unit that the instructor had prepared from many sources.

The basic math students who were placed on the terminal were placed there because they had not mastered a topic in their regular math class. The teacher involved felt that the students gained more understanding of mathmatical process and made fewer mistakes after working on the computer. The terminals best asset was the immediate feedback that prevented the students from practicing a mistaken method of operation on the basic skills in math. The patience of the computer also allowed the slower students to practice as many times as was necessary to completely learn a computational skill.

Objective # 2. The student will develop more positive

attitude toward learning because he will be able to proceed at his own pace on his own level. The teachers involved with the students who were working on the computer terminals noted that the students waited for the reports to come each Wednesday from Akron University so they could show the teachers how much they had gained during the previous week. While they were aware that the teachers could see their progress on the terminal by asking for it, they were very much interested in having the computer print-out show that they had made progress. They were positive in their attitude toward learning from the terminals even after their newness had worn off. The attitude was positive toward learning on the terminals but had not as much carry-over into other methods of learning as the teachers had hoped.

Objective # 3. The student will improve his learning productivity by responding to the immediate feedback of the computer. All of the results under objective number one show the increased learning that took place with the addition of a computer. Learning on the terminals had a snowballing effect. The more they progressed through a program, the more they wanted to complete the program. The students progressed faster than experienced teachers expected them to and many times completed programs ahead of schedule.

Objective # 4. The student will become literate about computer vocabulary and use which will play an important part in his

future life. A short check list was given to randomly selected students after they completed a course on the computer. Eighty nine per cent of the students answered all of the questions correctly. Seven per cent of the students answered nine out of ten questions correctly and the other four per cent answered less than ninty per cent of the questions correctly. It was felt that the students had acquired a computer vocabulary and they were able to use the computer terminals. About ninty-five per cent of the students mastered the techniques involved in connecting our computer terminals to the mainframe at Akron University.

Objective # 5. The teacher will have complete records of the student's progress available at all times. The University of Akron provided weekly computer print-outs of student progress. No print-out is included with this report because pupils names are printed on the reports. The reports told the teacher the time each student spent on the terminal, the number of items he missed, the number of items he completed correctly, and told if the computer had looped the student back through a program he did not understand.

Additional comments. A few students took advanced courses (Algebra and English) which would not normally be available to them in the elementary school. They enjoyed the challenge and

were elated with the results. Three top math students also took the programing course on the computer. When they were taken to the computer store, they found that they could easily transfer their knowledge of Course Writer III to BASIC. These three students were especially impressed with their knowledge of computer programing.

The future of CAI at Bath School. The teachers involved in the project are continuing their work in the area of computer use in the school room. The computer terminal will be used again next year in the class room. Research is going into establishing a computer main frame at Bath School and providing Computer Assisted Instruction and Computer Managed Instruction for all pupils and all teachers.

The Student Survey. A copy of the student survey is included in the appendix to this report. Ninety-three point seven per cent (93.7%) of the answers were favorable to the use of the computer terminal in the class room. All students who worked on the computer terminals completed the survey.

The Parent Survey. A copy of the parent survey is included in the appendix to this report. A copy of the results is shown on the chart on page eight. The results show that the parents were happy with the use of the computer terminals in the class room.

Bath Elementary School
Summit County, Ohio



PARENT COMPUTER SURVEY

## RESULTS

All of the parents of students who used the computer terminals at Bath Elementary School received a survey. Eighty seven per cent of the surveys were returned. (Ninety five out of one hundred and nine surveys were returned.)

Below is a copy of the survey with the average response listed beside each question. The results of the survey indicate that the parents of the children using the computer terminals were happy with the terminals and believe that they were an asset to our educational programs. Many complimentary comments were made about our use of the computer terminals in the school room.

1 = strongly agree; 2 = agree; 3 = no opinion; 4 = disagree; and 5 = strongly disagree.

| Average response: | Statement: |
|---|---|
| 1.1 | My child enjoyed working on the computer. |
| 1.5 | My child learned from his work on the the computer. |
| 1.2 | I think all children should have the opportunity to work on the computer. |
| 1.3 | I wish all teachers had two or three computer terminals in their rooms. |
| 4.7 | I think the computer is just a baby-sitter for the teacher. |
| 1.7 | I wish I had a computer in my house so that my children could do their home-work on it. |
| 4.8 | I wish the school would not bother with computers. |
| 1.6 | I think my child likes to use the computer terminal to learn new things. |
| 1.1 | I wish I had a computer in my house to do the things that I don't like to do or forget to do. |

APPENDIXES


I. Cover page of pamphlet given to visitors . . . . . 9

II. Inside of pamphlet given to visitors . . . . . 10

III. Student Computer Survey. . . . . 11

IV. Parent Computer Survey . . . . . 12

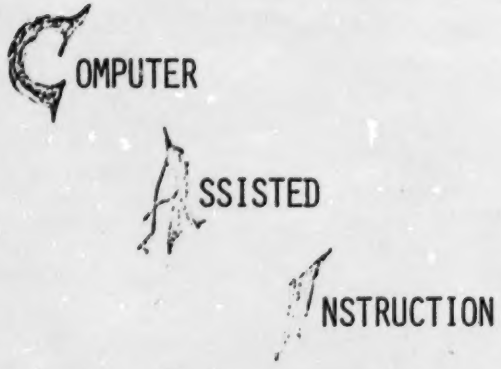
V. Weekly work schedule for terminals . . . . . 13

VI. Weekly sign-up schedule for terminals. . . . . 14

VII. News article . . . . . 15

## BATH ELEMENTARY SCHOOL

Revere Local Schools
1246 N. Cleveland - Massillon Rd.
Akron, Ohio




| | |
|---|---|
| James N. Nelson | Principal |
| Burdene K. Bowman | 6th Grade Teacher |
| James Gillespie | 6th Grade Teacher |
| Thomas Barabas | 6th Grade Teacher |
| Phylliss Bare | 6th Grade Teacher |



NOTES

Computer Assisted Instruction at Bath Elementary School has been made possible by a grant from the Martha Holden Jennings Foundation, a teacher grant funded under E. S. E. A. Title IV-C, and the Computer Store in Fairlawn Plaza.

The two computer terminals allow us to schedule forty-two pupils daily for work on the computer and twenty students to play educational games on the computer during school time. The terminals are available for the sixth graders and their parents to use after school hours four nights a week. Every sixth grader will complete at least one program on the terminals

The terminals will call the pupils by their first names, allow the students to set their own learning speed, and give the students immediate feedback on their responses. The students using the terminals do not feel they are being watched by an adult so they are not concerned about making mistakes.



Some of the programs loop students who are having trouble through a remedial program to correct the problem immediately. The computer may also skip some of the repetitive drill for the faster students.

The terminal will also collect on-line data for the teacher as the pupil works. The information assists the teacher in planning future lessons.

The computer terminal is connected to the computer at the University of Akron by way of telephone lines. Programs are available in reading, math, metrics, spelling, language arts, vocabulary building, and educational games; and are provided by the University of Akron's CAI Center.

Students have been assigned to show you our computer center. If you have further questions, please approach the teacher at a time when the class will not be disrupted.

BATH ELEMENTARY SCHOOL
Summit County, Ohio

STUDENT COMPUTER SURVEY



Place a check mark in front of AGREE if you agree with the statement. Place a check mark in front of DISAGREE if you disagree with the statement. Do not place your name on this paper.

1. I enjoy using the computer. . . . . ___ Agree ___Disagree

2. I like the computer because it lets you take part at each step in the lesson. . . . . ___ Agree ___Disagree

3. The computer is nothing but a babysitter for the teacher. . . . . ___ Agree ___Disagree

4. Usually the computer does not give clear explanations of the material. . ___ Agree ___Disagree

5. I feel comfortable working on the computer. . . . . ___ Agree ___Disagree

6. I would like all of my friends to use the computer for school work. . . ___ Agree ___Disagree

7. The computer makes me feel as though I am <u>not</u> a person. . . . . ___ Agree ___Disagree

8. I wish I could do all of my homework on a computer terminal. . . . . ___ Agree ___Disagree

9. I had to spend too much time at the computer terminal. . . . . ___ Agree ___Disagree

10. Everytime I go to use the computer, it breaks down. . . . . ___ Agree ___Disagree

11. I like the computer because I can make mistakes without being embarrassed. . . . . ___ Agree ___Disagree

12. Most computer lessons are too hard for me. . . . . ___ Agree ___Disagree

13. The computer seems to know when I don't understand something. . . . . ___ Agree ___Disagree

14. Eventhough my time was over on the computer, I would continue working until someone told me to stop. . . . ___ Agree ___Disagree

15. Using the computer is boring. . . . . ___ Agree ___Disagree

16. Computers are becoming more important in my life as a student. . . . . ___ Agree ___Disagree

17. I wish our school did <u>not</u> have computer terminals for us. . . . . ___ Agree ___Disagree

18. I wish I had a computer terminal. . . ___ Agree ___Disagree

Bath Elementary School
Summit County, Ohio

PARENT COMPUTER SURVEY



Please answer the following questions to give your opinions of the use of computer terminals at Bath Elementary School. Your response will assist us in evaluating the computer programs.

Circle 1 if you strongly agree with the statement
Circle 2 if you agree with the statement
Circle 3 if you have no opinion about the statement
Circle 4 if you disagree with the statement
Circle 5 if you strongly disagree with the statement

1 2 3 4 5 My child enjoyed working on the computer.

1 2 3 4 5 My child learned from his work on the computer.

1 2 3 4 5 I think all children should have the opportunity to work on the computer.

1 2 3 4 5 I wish all teachers had two or three computer terminals in their rooms.

1 2 3 4 5 I think the computer is just a baby-sitter for the teacher.

1 2 3 4 5 I wish I had a computer in my house so that my children could do their homework on it.

1 2 3 4 5 I wish the school would not bother with computers.

1 2 3 4 5 I think my child likes to use the computer terminal to learn new things.

1 2 3 4 5 I wish I had a computer in my house to do the things that I don't like to do or forget to do. (pay the bills when due, remind me to buy a present at least one day ahead of time, keep a list of my needs from the grocery store, turn the heat down during the night, remind me to thaw the meat in the morning instead of a few minutes before I need it, keep my favorite recipes on file at my finger tips, etc.)

If you wish to add comments, please use the back of this paper.

If you have any questions about the computers and/or their programs, contact Burdene K. Bowman (666-4155 or 666-8534).

WORK SCHEDULE FOR THE COMPUTER TERMINAL FOR THE WEEK OF / /

| TIME | TERMINAL # I | M | T | W | T | F | TERMINAL # II | M | T | W | T | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8:50 | | | | | | | | | | | | |
| 9:05 | | | | | | | | | | | | |
| 9:20 | | | | | | | | | | | | |
| 9:35 | | | | | | | | | | | | |
| 9:50 | | | | | | | | | | | | |
| 10:05 | | | | | | | | | | | | |
| 10:20 | | | | | | | | | | | | |
| 10:35 | | | | | | | | | | | | |
| 10:50 | | | | | | | | | | | | |
| 11:05 | | | | | | | | | | | | |
| 12:30 | | | | | | | | | | | | |
| 12:45 | | | | | | | | | | | | |
| 1:00 | | | | | | | | | | | | |
| 1:15 | | | | | | | | | | | | |
| 1:30 | | | | | | | | | | | | |
| 1:45 | | | | | | | | | | | | |
| 2:00 | | | | | | | | | | | | |
| 2:15 | | | | | | | | | | | | |
| 2:30 | | | | | | | | | | | | |
| 2:45 | | | | | | | | | | | | |
| 3:00 | | | | | | | | | | | | |

COMPUTER TERMINAL SIGN-UP SHEET FOR THE WEEK OF / /

| | TERMINAL # I | | | | | TERMINAL # II | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| TIME | MON. | TUE. | WED. | THURS. | FRI. | MON. | TUE. | WED. | THURS. | FRI. |
| 8:20 - 8:30 | | | | | | | | | | |
| 8:30 - 8:40 | | | | | | | | | | |
| 8:40 - 8:50 | | | | | | | | | | |
| 11:20 - 11:30 | | | | | | | | | | |
| 11:30 - 11:40 | | | | | | | | | | |
| 11:40 - 11:50 | | | | | | | | | | |
| 11:50 - 12:000 | | | | | | | | | | |
| 12:00 - 12:10 | | | | | | | | | | |
| 12:10 - 12:20 | | | | | | | | | | |
| 12:20 - 12:30= | | | | | | | | | | |

# REVERE CRIER

MARCH, 1978

## BATH ...JOINS COMPUTER AGE

In January Bath school officially joined the computer age. A grant from the Marth Holden Jennings Foundation has been awarded to Miss. Burdene Bowman, sixth grade teacher. The grant provides a CRT (computer terminal) in her sixth grade room. The terminal is connected to the computer at the University of Akron via telephone lines.

Each child is scheduled for 15 minutes a day on the terminal with the possibility of getting more time at noon or after school. The students work in areas of reading, language arts, spelling, math, metrics and educational games.

The terminals will call the pupils by name, allow students to set their own learning speed, and give immediate feedback. Students will know immediately whether their answers are right or wrong and need not wait until the teacher checks their paper. Some of the programs loop students who are having trouble through a remedial program to correct the problem immediately.

The terminal also collects on-line data for the teacher as the students work. The teacher can check the data to see where the children are having trouble and use the information to build the next lesson.

# Computer Terminals Come To Bath School

By Meg Perry and Lisa Duddey

On January 5th and 6th, the sixth grade classes of Bath Elementary School Visited the Computer Assisted Instruction Center at the University of Akron. They toured the main frame of the computer, ate lunch at the Student Union, and learned how to operate a computer terminal.

They were scheduled for one hour on the terminals and were so fascinated with the terminals that the time seemed like fifteen minutes. Most of the children thought the terminals were neat and were impressed that the terminals called the children by their first names. They really became excited when they returned to school because a terminal had been installed while they were at the University.

The terminal is being provided by funds from a teachers' mini grant from the State of Ohio. The grant was written by James Gillespie, Thomas Barabas, and Burdene K. Bowman, sixth grade teachers at Bath School. A second terminal will be added during the third week in January. It will be provided by funds from a Martha Holden Jennings Foundation grant awarded to Burdene K. Bowman and the Computer Store in Fairlawn Plaza.

The students will work in the areas of reading, language arts, spelling, math, metrics, and educational games on the computer terminals. The sixth graders and their parents will also be allowed to use the terminals after school hours. The Computer Assisted Instruction facilitates the educational process by calling the children by their first names, giving the children immediate feedbacks to their responses, and collecting on-line data for the teachers to help them plan future lessons.

**Picture shows Lisa Duddey and Meg Perry working on a CRT [computer terminal] at the University of Akron Computer Assisted Instruction Center.**

Our computer terminal is connected to the computer at The University of Akron by a telephone line. It is interesting to have two telephones in our class even though we can't use them for anything except calling the computer at the University of Akron. We also have a new computerized television game in our rooms. It helps us develop coordination and even drills us on math facts.

MHJF Reports from The Martha Holden Jennings Foundation

March-April 1979
Volume Eight, Number One

Bath Elementary School
Richfield, Ohio

# Bath Elementary Introduces Computer Assisted Instruction to Richfield Schools

Teachers at Bath Elementary School in Richfield, Ohio, expected computer assisted instruction to affect student learning, but as they tabulate preliminary data, student academic gains are exceeding their expectations. "Learning on a computer has had a snowball effect," says Burdene Bowman, project director. "The more our students progress through a computer program, the more they want to complete that program. Many times their work is completed ahead of schedule.

**Computer technology enhances elementary instruction**

In January, 1978, two computer terminals were installed in Mrs. Bowan's sixth grade class at Bath Elementary School. The pilot project, funded by the Jennings Foundation and a teacher grant under E.S.E.A. Title 4-C, was to assess the feasibility of computer assisted instruction for the Revere Local Elementary schools. The computer terminals were connected via telephone lines to the mainframe at nearby University of Akron.

**"The (computer) terminals best asset is the immediate feedback that prevents the students from practicing a mistaken method of operation on basic math skills."**

The purpose of the project, writes Mrs. Bowman, "is to use the computer as an interactive instructional system to assist the teacher in satisfying the personal educational needs of students. In the areas of remedial reading, mathematics, and vocabulary, computer assisted instruction allows the student to proceed at his own pace on his own learning continuum."

All 100 sixth grade students use the computer daily either for remediation or enrichment. The teacher and student together select the computer program appropriate for his or her needs. Once the program is selected, the student works on the terminal for 20 minutes each day until the program is completed.

"Having the computer terminal in the classroom more than doubles the time each student receives personal attention," Mrs. Bowman says. Also, the immediate feedback given by the computer assists the students in becoming more efficient learners. If the student gives the computer the wrong response, the computer loops back through the program and helps the student correct his mistakes."

**Project results**

Mrs. Bowman has been recording pre- and post-test results of the students as they complete computer programs. She currently is tabulating student gains. Preliminary data show that students gained an average of 2.4 months in reading proficiency during the semester they used the computer. An unexpected benefit, Mrs. Bowman adds, is that the video terminal acts like a speed reading machine and improves the students' reading rate.

Academic gains in mathematics also have been higher for those students participating in computer assisted instruction. Each of the teachers involved in the project feel that the students gain more understanding of the mathematical process and make fewer mistakes after working with the computer. "The terminals best asset," Mrs. Bowman says, "is the immediate feedback that prevents the students from practicing a mistaken meth-

*(continued on page 4)*

*The MHJF Bulletin, intended to make the findings of selected Foundation projects available to the broad educational community, will be published in six issues during 1979. Individuals who wish to receive the Bulletin are invited to request it from the Martha Holden Jennings Foundation, 700 National City Bank Building, Cleveland, Ohio 44114.*

## Three Ohio Schools Get the Most from Volunteer Hours— Mentor, Kirtland Local, & Lakewood City School Districts

Certainly no one would argue that volunteer teacher aides can be an indispensable resource to school personnel. However, some administrators and teachers would caution that volunteers in the classroom can be a waste of time for both the teacher and the volunteer. This was the concern of three teachers, Mrs. Virginia Bizak of the Mentor Exempted Village School District, Mrs. Betty Farenchak, Kirtland Local Schools, and Mrs. Nancy Karabinus of the Lakewood City School District. Each of these teachers received a Jennings grant to support orientation programs and in-service workshops for volunteer teacher aides. They concur that the need for these workshops originates from the lack of time most teachers have to properly familiarize volunteers with classroom procedures and instructional materials.

Workshops where teachers and volunteers produce their own classroom instructional materials seems to be a good way to help the volunteers become comfortable with the classroom routine. This was the purpose of a series of workshops held last summer at Lake and Brentmoor Elementary Schools in Mentor, a northeast Ohio community.

**"[Volunteer] assistance to the teacher maximizes individual instruction while the teacher-made curriculum materials provide a variety of media for instruction."**

Teachers at Lake and Brentmoor Schools have been concerned with their students' poor performance on standardized achievement tests. Approximately 25 percent of the students scored one year below grade level in reading according to Mrs. Virginia Bizak, a Mentor reading specialist. "This indicated to us the need for additional reinforcement in reading skills. But the success of any reading program is dependent upon having many materials available to the classroom teacher at various levels of difficulty along with resource personnel to work individually with students."

**Volunteers produce instructional materials**

Mrs. Bizak invited teachers and volunteers to participate in a four-week workshop (June 26-July 21, 1978) where they would learn to make and use remedial reading "skill packets." "The workshop," Mrs. Bizak says, "served a dual purpose. The volunteers by actually producing the skill packets learned about the specific skills needed for remediation and how to use appropriate materials geared for each student's needs. In addition the volunteers produced a broad array of remedial reading materials that provide the students with multiple opportunities for reading success."

They produced 36 skill packets composed of six skill packets for each grade level (grades 1 through 6). For example, the fifth grade packet includes:

Packet 1—Word Recognition (vocabulary in the content areas)
Packet 2—Word Meaning (synonyms-antonyms-homophones-homograph)
Packet 3—Phonics (syllabication-vowels-rules-accents)
Packet 4—Structural Analysis
Packet 5—Comprehension
Packet 6—Use of Reference Materials

The students, of course, are the main benefactors of this program. They not only are experiencing gains in reading skills, but Mrs. Bizak reports the students show an improved attitude toward themselves and reading. The volunteers, too, seem more comfortable in the classroom now that their responsibilities are defined. In addition, their assistance to the teacher maximizes individual instruction while the teacher-made curriculum materials provide a variety of media for instruction.

**Kirtland's volunteer management system**

Without volunteer assistance at the elementary schools in the Kirtland Local School District* the schools' libraries would close, the lunchrooms would not be supervised adequately, and fewer students would benefit from speech therapy and reading remediation. More than 120 volunteers each devote two hours per week at Kirtland's two elementary schools, Kirtland and Gildersleeve. Those hours are productive both for volunteer and teachers because of the volunteer management system developed by Mrs. Betty Farenchak, volunteer coordinator and fifth grade teacher.

"Volunteers are an integral part of our elementary programs," Mrs. Farenchak says. "Since training volunteers requires so much time by the cooperating teacher, we feel that workshops provide a structured approach to that training."

Mrs. Farenchak together with the teaching staffs designed the system's first orientation workshops which were supported with a Jennings grant-to-teachers. The

*Kirtland is located about 30 miles east of Cleveland.

workshops concentrated on the types of volunteer assignments available, specific assignment responsibilities, and familiarization with equipment and instructional materials. A panel of teachers and volunteers presented a general overview of Kirtland's volunteer program. Following the panel presentation, workshop participants met in small groups to discuss in detail specific volunteer assignments.

Like Mrs. Bizak, Mrs. Farenchak also felt that the volunteers should have their own instructional materials. So as soon as a volunteer chooses an assignment, she receives her own packet of classroom materials. She is encouraged to take the packet home to become familiar with the suggested activities.

These instructional materials were either purchased or made by each of the classroom teachers at Gildersleeve and Kirtland Schools. The tutoring kits include a variety of activities that range from remediation tasks to enrichment activities. The classroom teacher determines the type of individual instruction needed by a student and prescribes specific materials contained in the volunteers tutoring packet. Directions are written clearly so the volunteer knows exactly what the student is expected to do and how to assist the student. The volunteer then monitors the student activity and completes a written evaluation when the student completes the task.

**"Since training volunteers requires so much time by the cooperating teacher . . . workshops provide a structured approach to that training."**

"When the task of the pupil is to remember, recall, identify or discriminate the process is training not teaching," Mrs. Farenchak says. "A volunteer can direct these activities that are planned by the teacher. These are nonteaching duties and reinforcement level training, not teaching responsibilities."

Kirtland's volunteer program greatly increases the amount of individualized instruction each student receives. The program also allows for greater community involvement and an opportunity to expose children to the knowledge and expertise of individuals that go beyond the financial ability of the school system.

**Volunteers study interpersonal skills**

Since the parent volunteers at McKinley Elementary School in Lakewood, a western Cleveland suburb, are already familiar with classroom routine and instructional materials, Nancy Karabinus designed her volunteer inservice to stress interpersonal communication skills.

"A volunteer must understand the needs of the children with whom she works," Mrs. Karabinus says. Understanding their students' emotional makeups is as important as understanding their specific academic needs."

This was the message she conveyed to the volunteers who attended the three sessions held in January, 1979. The volunteers set the tone for the meetings. When asked to identify what they wished to gain from their volunteer experience, the volunteers agreed they wanted to view first hand what happens in their children's classrooms. As part of the teaching team, however, they wanted to affect changes in the education process. Since they were veteran volunteers, they felt comfortable with tutoring responsibilities, but they wanted exposure to the type of interpersonal skills that would enhance interaction with their students.

Together with Mrs. Karabinus they decided on the following objectives:

- to provide students with a variety of concerned adults willing to strengthen the child's self esteem by listening actively to his needs, wants and problems in learning;
- to model empathic understanding so children may learn to be more responsive to each other;
- to facilitate students' abilities to personalize curriculum materials to his own needs;
- to reinforce teacher-taught concepts and skills in the curriculum areas;
- to serve as resource persons in McKinley's individualized learning stations.

In keeping with these objectives, inservice activities included exercises in active listening, discussions on attending behavior and its role in the classroom, and instruction on how to evaluate student performance and volunteer performance. Small group discussions centered on readings from Thomas Gordon's *Parent Effectiveness Training and Teacher Effectiveness Training* and Robert R. Carkuff's *The Skills of Teaching: Interpersonal Skills.*

"At McKinley, we stress the importance for students to become self-learners," Mrs. Karabinus says. "We help them to measure their individual progress which places them in control of the learning process. To affect these outcomes, teachers and volunteers must have the skills to relate the learners to the learning process. Interpersonal skills allow the teacher and volunteer to enter the learner's frame of reference and prepare them for learning."

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Mrs. Nancy Karabinus
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Mrs. Virginia Bizak
Brentmoor Elementary School
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Mentor, Ohio 44060

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od of operation on basic math skills. The computer allows a student to practice as many times as necessary to completely learn a computational skill."

The teachers are aware of each student's progress with the computer programs. The University of Akron provides them with print-outs that report the time each student spends on the terminal, the number of items the student misses, the number of items completed correctly and if the computer looped the student back through a program he did not understand.

Teachers, parents and students are pleased with the successful results of the computer pilot project. The computer terminals will remain as part of Bath Elementary's sixth grade curriculum. Hopefully, computer assisted instruction will be available throughout the Revere Local School System.

Addresss inquiries to:

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Each of the grants detailed in this month's Bulletin have been supported by the Jennings Foundation. For further information on program funding and the Jennings Grant-to-Teachers program write:

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Cleveland, Ohio 44114

A comprehensive language training pilot program is currently underway in the kindergarten classes at **Valley Vista Elementary School in North Royalton**, a community located north of Akron. Project Director Hazel Warren, a speech and language clinician, feels that initiating a language program as early as kindergarten will provide children with basic skills training which will influence their future academic performance.

Mrs. Warren conducted a research study in two of North Royalton's kindergarten classes to determine the benefits of a language program. She presented six language lessons to one kindergarten class while the other class received no language training. She administered an informal first grade readiness test to both groups and found that the group receiving language instruction scored the highest. "If a random sample can show improvement in conceptual skills as a result of language training," Mrs. Warren says, "then we feel it is possible for the majority of our students to improve their language skills given the opportunity."

The program emphasizes four major areas:

1. Auditory skills (perception and memory)
2. Semantic skills (vocabulary development)
3. Syntactical skills (grammar)
4. Phonology (articulation of speech sounds)

Mrs. Warren visits each of the kindergarten classes once each week to introduce the lessons. Together she and the teachers plan follow-up activities and assignments for the children to work during the week. "We anticipate that the children will develop good listening skills, expand their vocabulary and cognitive skills, and utilize efficient speech habits as a result of this program," she says. "More importantly, they will be better prepared for their first grade experiences."

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